

SITUATION AND LAYOUT CHECKLIST FOR HIGHWAY / WATERWAY CROSSINGS

PROJECT NAME: _____

PROJECT KEY NUMBER: _____

BRIDGE DRAWING NUMBER: _____

CHECKED BY: _____

Use pencil to mark items. Use an X or ✓ to indicate completion. Use “INC” to indicate items which are incomplete and “N/A” to indicate items which do not apply. For additional information on the design requirements refer to Chapter 17 of the “LRFD” Manual.

BORDER

- ☐ Designed and Detailed Names
- ☐ Design Checked and DWG Checked Names (required when work has been checked)
- ☐ Corrections Name (need only be completed when corrections have been made)
- ☐ Engineers Stamp (For Full and Half sized Sheets)
- ☐ Project Number
- ☐ Sheet Title
- ☐ Project Description (Length, Type of Support, Crossing, Station)
- ☐ Bridge Inspection Master Key (Only required on sheet 1)
- ☐ Bridge Drawing Number (required but may not be available during preliminary design)
- ☐ Project County and Key Number
- ☐ Sheet Numbering (required for final design and PS&E submittals)

PLAN VIEW

- ☐ View Title with scale factor
- ☐ Length of Structure (out to out) along survey line
- ☐ Station and Finished Grade Elevation at the Beginning and End of structure along Centerline.
- Abutment / Pier number, Station, and Finished Grade Elevation shown at the Intersection of the Abutment / Pier Centerline and Survey line at the following locations:
 - ☐ Centerline of bearing of Abutments
 - ☐ Center of Piers / Bents
- Span lengths along survey line shown as follows:
 - ☐ Single Spans or End Spans: abutment centerline bearing - centerline pier/bent
 - ☐ Interior Spans: centerline pier/bent - centerline pier/bent
- ☐ Bridge Width shown (out - out). Width should include the parapet, curb and sidewalk as applicable.
- ☐ Curb-to-Curb Width shown
- ☐ Roadway Lane and Shoulder Widths shown
- ☐ Lane Direction and Name of Closest Town/Geographical Feature in that Direction indicated
- ☐ North arrow shown
- ☐ Intersection Angle shown if not a 90° crossing
- horizontal and vertical clearances shown as follows:
 - ☐ Highway Crossings: Show the point of minimum vert. and horiz. clearance for the highway
 - ☐ Stream Crossings: Show the point of minimum clearance above Q50 high water elevation
- ☐ Identification of Survey and Profile lines
- ☐ Existing Bridge Details shown (as needed)
- ☐ Existing Bridge Drawing Number given (Needed only if existing bridge is to be removed)
- ☐ Plan View Oriented so Elevation View can be placed below Plan View
- ☐ Bridge Stationing at Centerline of Structure shown and runs Left to Right of sheet
- ☐ Culvert Stationing at Centerline of Structure shown and runs Bottom to Top of sheet
- ☐ Rip Rap Limits shown with pay note (as applicable)
- ☐ Contour lines shown and gray shaded
- ☐ Utilities Crossing the structure shown (as applicable)
- ☐ Deck drains shown (as applicable)
- ☐ Survey Cap shown with installation note

* Horizontal Alignment Data should be included in this view if possible. See Horizontal Alignment Data Checklist for items to be included.

ELEVATION VIEW

<input type="checkbox"/>	View Title with scale factor
<input type="checkbox"/>	Total length between abutment centerlines along survey line shown
	Abutment/Pier Number and Station shown at the following locations:
<input type="checkbox"/>	Centerline Bearing of Abutments
<input type="checkbox"/>	Centerline of Piers/Bents
<input type="checkbox"/>	Span Length Shown
<input type="checkbox"/>	Span Number Shown (Multi-Span Structures only)
<input type="checkbox"/>	Fixity Shown ("E" Expansion, "P" Pinned, or "F" Fixed) (not required on stifflegs)
	Minimum Vertical Clearances shown as follows:
<input type="checkbox"/>	Highway Crossing: Minimum Clearance from roadway
<input type="checkbox"/>	Stream Crossing: Minimum Clearance from Q_{50} High Water Elevation
<input type="checkbox"/>	Ground Line along the Centerline of Structure Shown
<input type="checkbox"/>	Abutment Slopes shown and annotated
<input type="checkbox"/>	Abutment / Pier Projection lines shown (Do not show where projection lines may be confusing)
<input type="checkbox"/>	Roadway approach Guardrails shown with associated note

PROFILE DATA

<input type="checkbox"/>	View Title with scale factor
<input type="checkbox"/>	Profile Grade Across Structure Shown
<input type="checkbox"/>	Structure Location Shown on Profile
<input type="checkbox"/>	Station and Elevation for the Beginning and End of Structure Shown
<input type="checkbox"/>	Profile Grades for all Highways involved in Crossing Shown
	The following Vertical Curve Data Shown:
<input type="checkbox"/>	Stations and Elevations at Point of Curvature, Point of Intersection, and Point of Tangency
<input type="checkbox"/>	Length of Vertical Curve
<input type="checkbox"/>	Incoming and Outgoing Grades as a percent

HORIZONTAL ALIGNMENT DATA

* Horizontal Alignment Data should be included in the Plan view if possible.

<input type="checkbox"/>	View Title
<input type="checkbox"/>	Stations and Elevations at Point of Curvature, Point of Intersection, and Point of Tangency Shown
<input type="checkbox"/>	Horizontal Curve data Shown (Δ , T, L, R, S, RL, and Z)
<input type="checkbox"/>	Horizontal Curve described in Degree of Curve
<input type="checkbox"/>	Super Elevation Transition Data Shown (If possible)
<input type="checkbox"/>	Alignment Bearing (Should be shown in Plan View if possible)

HYDRAULIC DATA

<input type="checkbox"/>	View Title
	Hydraulic Data for Streams and Rivers shown for the following conditions:
<input type="checkbox"/>	Design (Flood, discharge, H.W. Elev., and Velocity)
<input type="checkbox"/>	Base (Flood, discharge, H.W. Elev., and Velocity)
<input type="checkbox"/>	Scour (Flood, discharge, H.W. Elev., and Velocity)
<input type="checkbox"/>	Hydraulic Data for Canals Shown (Canal Flow, H.W. Elev., Velocity, and Flow Controller)

TRAFFIC DATA

<input type="checkbox"/>	View Title
<input type="checkbox"/>	Traffic Data for Construction Year and 20 years past Construction year Shown (Current ADT, Future ADT, Current ADT % Trucks, Future ADT % Trucks, Design Speed)

INDEX OF SHEETS

<input type="checkbox"/>	View Title
<input type="checkbox"/>	Sheet number and Sheet Title Shown for all Sheets

QUANTITIES

<input type="checkbox"/>	View Title
<input type="checkbox"/>	Bid Item Number, Description, and Unit Shown for all applicable items
<input type="checkbox"/>	Bid Item Quantity Shown (Not Required until Final Design)